Notes on Japanese RHOPALOCERA, *with descriptions of new species*; by OLIVER E. JANSON.

The species here described or recorded as Japanese are chiefly from a very fine and extensive collection made by F. M. Jonas, Esq., during four years sojourn in the Island of Niphon; the first set, including the uniques, is now in the possession of Messrs. Salvin and Godman; the Heterocerous portion of the collection will probably soon occupy Mr. Butler's attention.

Erebia niphonica, n. sp.

Above dark brown, body and base of wings blackish; primaries with a large ochreous patch beyond the middle extending from the sub-costal nervure almost to the inner margin, subovate, slightly narrowed in the middle and dentate externally, containing a double black spot in front, and a smaller round one behind; secondaries with an ill defined reddish-brown transverse band beyond the middle, containing three small round black spots near its outer edge, the one nearest the anal angle with a white pupil; beneath brown, primaries marked as above; secondaries with the band slightly indicated by dusky brown, the white pupil alone distinct. In the female the black spots on both wings have conspicuous white pupils above and below, the spots on the upper side of secondaries are only partly surrounded with reddish-ochreous in place of the band in the male, beneath they have a large dusky white basal patch and a conspicuous silvery white sinuous band. Expanse of wings 1 inch 10 lines.

This interesting species (the first of the genus discovered in Japan) was taken by Mr. Jonas on Assamayama, at an elevation of about 7,000 feet, and to whose liberality I am indebted for the specimens described above, it appears to me to be most nearly allied to *E. stygne*, Fisch, Ent. Russ. i, t. 1, f. 2.

outer margin, and the marginal spots are larger. Expanse of wings 2 inches 10 lines.

This is probably the species erroneously referred to *aglaiæ*, by Mr. Murray, the above mentioned characters will serve to separate it at once from that species, as well as from *jainadeva*, Moore.

Neptis Pryeri, Butl.

Neptis Pryeri, Butler, Trans. Ent. Soc. Lond. 1871, p. 403 ; Lep. Ex. p. 184, t. 63, f. 4.

Limenitis arboretorum, Oberthür, Etudes Ent. 2, p. 24, t. 3, f. 3 (1876).

Several specimens taken by Mr. Jonas at the foot of Oyama agree perfectly with the descriptions and figures quoted, thus leaving no doubt of the identity of M. Oberthür's species with *N. Pryeri*.

Neptis alwina, Brem.

I am indebted to Mr. Fenton for a specimen of this fine species, Mr. Jonas has also taken several at the foot of Oyama.

Dichorragia nesimachus, Boisd.

Two specimens taken by Mr. Jonas in a mountain pass about 100 miles N.W. of Yedo must be referred to this species, which appears hitherto to have only been received from North India.

Lycæna bætica, Linn.

Several specimens of this common and widely distributed species have been taken by Mr. Pryer at Yamato ; I have not found it recorded before from Japan.

Niphanda fusca, Brem.

Thecla fusca, Brem. Beitr. Schmett, N. China's, p. 9, Ménét Cat. Mus. Petrop. Lep. i., t. 4, f. 5. ♀

Amblypodia dispar, Brem. Lep. Ost. Sib., p. 24, t. 3, f. 4. ♂

Polyommatus fuscus, Oberth. Etudes Ent. 2, p. 20, t. 4, f. 5. ♀

A pair of this species received from Mr. Fenton agree well with the figures above quoted, and are the only specimens I have seen from Japan. Mr. Moore considers it should be placed in his genus *Niphanda.*

Thecla japonica, Murr.

Dipsas japonica, Murray, Ent. Mo. Mag. xi, p. 169.

Dipsas taxila, Hew, Ill. Diur. Lep. supp., p. 16, t. 6, f. 16, 17, (nec Brem.)

Mr. Murray, in his last list of Japanese Rhopalocera, considers this species to be possibly identical with *smaragdina,* Brem.; but, as Mr. Butler has already stated, it is perfectly distinct from that species and far more closely allied to *taxila*, Brem., with which Mr. Hewitson has apparently confounded it, since his figures above quoted are evidently intended for this species. His description of the underside, however, does not agree with the figure, but applies much better to the true *taxila*, which also occurs in Japan. How Mr. Murray overlooked the fact that this insect had been figured two years prior by Mr. Hewitson in his great work on the Lycaenidæ, to which family he (Mr. Murray) devotes his special attention, I am utterly at a loss to comprehend.

Thecla orientalis, Murr.

Dipsas orientalis, Murray, Ent. Mo. Mag. xi, p. 169.

Although Mr. Murray states his description is of the male of this species, it is evident he had never seen that sex, as several individuals recently received from Japan exhibit a similar sexual dissimilarity to that extant in *T. japonica*, being of a brilliant green above, paler than in that species, and without the black external margin to primaries, the underside agrees perfectly with the female.

This is a much rarer species than *japonica*, and the male was not discovered until last year, when Messrs. Pryer and Jonas took several in company with the females near Yokohama.

Thecla mera, n. sp.

Above dark brown, secondaries produced at the anal angle and with a short outer tail, the inner one long, its apex white: beneath pale brown, both wings crossed beyond the middle by a fine waved white line, margined with dusky brown on its inner side, divided by the nervures, bent inwards posteriorly, and ending at the abdominal margin, anal region of secondaries pale orange, with a large black spot between the tails, and a row of four smaller ones just above it, anal angle black, speckled with pale blue, a fine white marginal line, and a row of obscure dusky brown sub-marginal spots near the apex. Expanse of wings 1½ inch.

Several specimens of this species were taken by Mr. Jonas at Matzabaro, about 200 miles N.W. of Yedo; it is allied to *T. micans*, Brem., and *T. cærulescens*, Motsch.

In referring to Bremer's descriptions of *micans* and *cærulea* in his Beitr. zur Schmetterlings-Fauna d. Nœrd-China's, and the figures of those species given by Ménétriés in the Cat. Lep. de l'Acad. Imp., I find the latter author has transposed the names, tab. iv, fig. 4 is Bremer's *micans*, and fig. 3 *cærulea*.

Thecla enthea, n. sp.

Above dark brown, disc of primaries lighter; secondaries with one long tail, white at its apex; beneath white, primaries with seventeen conspicuous black spots, arranged thus, two near the base, the upper one large, one at the end of the cell, three in an oblique row on the costal margin beyond the middle, and an irregular transverse row of five, followed by a submarginal row of six, apical margin rather broadly brown; secondaries with three spots in a row at the base, a small one in the cell, an elongate one at its end, a similar shaped one between it and the anal angle, three along the abdominal margin, a curved transverse row of six beyond the middle, and a submarginal row of five, those at the base and near the costal margin black, but towards the apex the wings become dusky and the spots pale brown, margined with white, anal region pale orange, with two small black spots at the base of the tail, and one at the anal angle. Expanse of wings 1⅓ inch.

Two specimens taken by Mr. Jonas, near the River Yokawa, about 140 miles N.W. of Yedo, are all I have seen of this distinct species.

Thecla Jonasi, n. sp.

♀ Above orange, slightly golden, base of wings blackish, primaries with an apical black border, wide in front but narrowed towards the inner angle; secondaries somewhat produced at the apical angle, tails black, tipped with white, margin between the tail and anal angle slightly emarginate and edged with black; beneath brownish-ochreous; primaries with a narrow brown streak at the end of the cell, and a transverse brown band (almost divided into spots by the nervures) midway between it and the apex, extending from the costa almost to the inner margin, where it becomes narrow and of a darker brown; secondaries with a brown streak at the end of the cell, and a fine transverse white line beyond the middle, divided by the nervures, and edged with black on its inner side, commencing at the costa, turned inwards posteriorly, and ending just above the anal angle, which is orange-red and the lobe black. Expanse of wings 16–22 lines.

Allied to *T. lutea*, Hew., but it is of a darker orange above, without the black spots on secondaries, has more elongate wings, and is very differently marked on the underside.

A few specimens of this very distinct and interesting species were found by Mr. Jonas flying about a chesnut tree near the River Yokawa, at the foot of Assamayama.

Papilio macilentus, n. sp.

Allied to *P. demetrius*, Cram., but with all the wings narrower and much more elongated; primaries above dusky black, the black streaks between the nervures very narrow; secondaries with the outer margin strongly notched, the tails long and narrow, black, costa pale yellow, four small indistinct spots along the outer margin, and a broad ring on the abdominal margin dull red; beneath the primaries are paler than *demetrius* and somewhat shining; secondaries with four lunular spots along the outer margin, an interrupted ring on the abdominal margin, and a spot near the anal angle pale red. Expanse of wings $3\frac{3}{4}$—$4\frac{1}{4}$ inches.

The very long slender wings are sufficient to distinguish this species at once from *P. demetrius*, Cram., the only species which resemble it in other respects; it appears to be confined to the mountains, and has been taken by Messrs. Pryer and Jonas on Oyama.

Papilio alcinous, Klug.

Mr. Murray has erroneously referred the female of this species to *P. mencius*, Feld., both sexes of which are figured by Gray as a variety of *alcinous*, but I have not seen it from Japan.

Pamphila ochracea, Brem.

The specimens which I refer to this species differ from Bremer's figure in having the secondaries slightly produced at the anal angle, the figure is probably incorrect in that respect, as it otherwise agrees precisely.

Pamphila subhyalina, Brem.

Japanese specimens before me differ from Ménétriés' figure in having the secondaries produced at the anal angle, in being of a brighter yellow above and of a much paler colour beneath. The female is rather larger, of a paler yellow above, with the spots on the primaries more distinct, and without the black discal streak.

Pamphila venata, Brem.

There are several specimens in Mr. Jonas's collection of what I consider to be only a variety of this species, they differ from Menétriés' figure in having a broader black margin and a much narrower black discal streak on primaries.

Pyrgus inachus, Ménét.

I am indebted to Mr. Fenton for a specimen of this species, it has also been taken by Mr. Jonas.

Pyrgus sinicus, Butl.

P. sinicus, Butler, Ann. Nat. Hist., 1877, p. 96.

Japanese specimens which I have, agree precisely with the type in the National collection.

Cyclopides ornatus, Brem.

A single specimen of this species was taken by Mr. Jonas near Yokohama. Kirby locates it in the genus *Astictopterus*, Feld., but the typical species of that genus are apparently very different insects.

Isoteinon lamprospilus, Feld.

I. lamprospilus, Felder, Wien. Ent. Mon. vi, p. 30 (1862), Reis. Nov. Lep. iii, t. 74, f. 20.

Pamphila vitrea, Murray, Ent. Mo. Mag. xi, p. 171 (1875).

This well marked species has been re-described by Mr. Murray as a *Pamphila*. Japanese specimens sent home by Messrs. Pryer and Jonas agree exactly with Felder's description and figure.